(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 2 December 2004 (02.12.2004)

PCT

(10) International Publication Number WO 2004/105047 A2

(51) International Patent Classification7:

G21C

(21) International Application Number:

PCT/US2004/014875

13 May 2004 (13.05.2004) (22) International Filing Date:

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/470,496

15 May 2003 (15.05.2003)

- (71) Applicant (for all designated States except US): CON-TINUUM DYNAMICS, INC. [US/US]; 34 Lexington Avenue, Ewing, NJ 08618-2302 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BILANIN, Alan, J. [US/US]; 62 Battle Road, Princeton, NJ 08540 (US). KAUFMAN, Andrew, E. [US/US]; 172 Line Road, West Windsor, NJ 08550 (US).
- (74) Agent: WOODBRIDGE, Richard, C.; Synnestvedt Lechner & Woodbridge LLP, P.O. Box 592, Princeton, NJ 08542 (US).

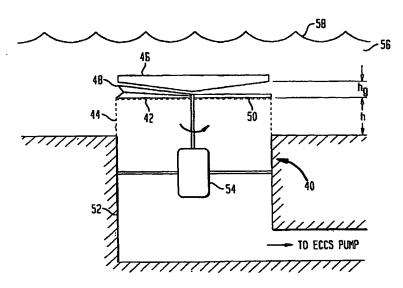
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: IMPROVED SELF-CLEANING STRAINER



(57) Abstract: An externally powered, self cleaning strainer incorporating a projectile shield, which is capable of operating for an extended period of time. A suitably shaped, motor, driven, impeller creates a localized, radially outward flow of fluid in the vicinity of the strainer inlet. The projectile shield has a lower surface shaped to deflect fluid to the strainer at a constant velocity, enabling the impeller to eject debris more efficiently. Maintaining a constant flow through the strainer also avoids additional head loss associated with accelerating flow. The self cleaning strainer may also include a brush attached diametrically opposite to the impeller to aid in removing debris from the inlet side of the strainer. The impeller may also be shaped so that when it is swept past the inlet side of the strainer, it causes a localized, reverse flow through the strainer, thereby removing debris particles from within the strainer.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.